

Coaxial Directional Coupler

ZFDC-20-4

50Ω

1 to 1000 MHz



BNC version shown
CASE STYLE: K18

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

Coaxial Connections

INPUT	3
OUTPUT	1
COUPLED	2

Features

- wideband, 1 to 1000 MHz
- excellent directivity, 27 dB typ.
- excellent mainline loss, 0.4 dB typ.
- excellent VSWR, 1.1:1 typ.
- rugged shielded case

Applications

- VHF/UHF
- cellular
- instrumentation
- communication receivers & transmitters

Connectors	Model	Price	Qty.
BNC	ZFDC-20-4	\$64.95	(1-9)
SMA	ZFDC-20-4-S	\$69.95	(1-9)
N-TYPE	ZFDC-20-4-N	\$69.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

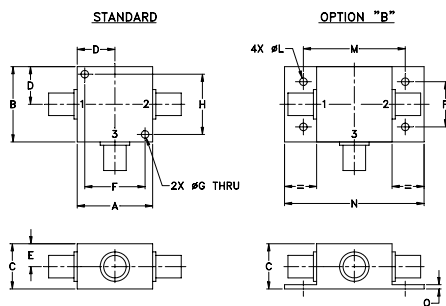
Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
1-1000	19.5±0.5	±0.5	0.4	1.2	0.4	0.8	0.8	1.5	36	28	27	20	23	28	1.1	0.5	2.0	

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

1. Mainline loss includes theoretical power loss at coupled port.

Outline Drawing



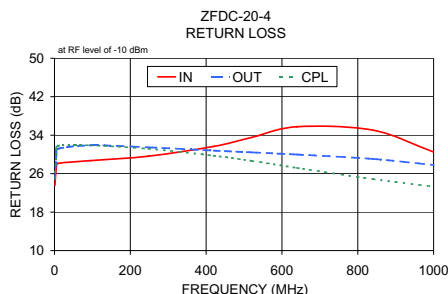
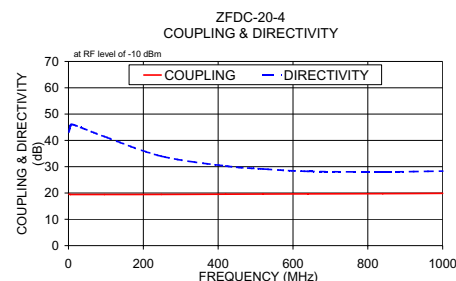
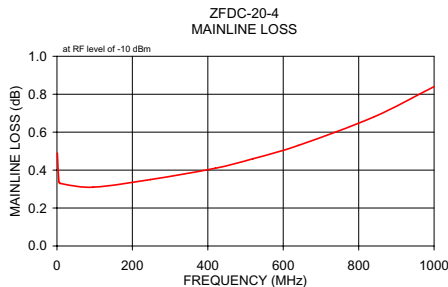
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

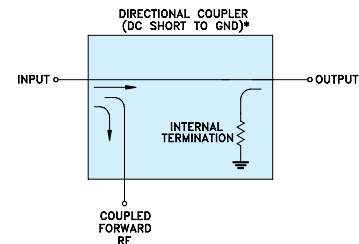
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
1.00	0.49	19.58	43.20	23.54	24.84	24.95
5.00	0.34	19.44	45.40	27.48	30.16	30.85
9.00	0.33	19.42	46.16	28.13	31.18	31.81
96.00	0.31	19.42	41.47	28.71	31.90	31.89
248.00	0.35	19.47	34.00	29.63	31.49	31.18
420.00	0.41	19.55	30.27	31.67	30.80	29.73
520.00	0.46	19.60	29.14	33.53	30.43	28.67
640.00	0.53	19.66	28.26	35.77	29.99	27.20
840.00	0.68	19.77	28.03	35.04	29.07	24.87
1000.00	0.84	19.87	28.35	30.50	27.81	23.33



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

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IF/RF MICROWAVE COMPONENTS

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